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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,384	11/10/2003	Pierre Liu	2011133	4323

7590 07/25/2005  
Keith Kline  
PRO-TECHTOR INTERNATIONAL  
20775 Norada Court  
Saratoga, CA 95070-3018

EXAMINER

TRAN, LONG K

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/705,384

Applicant(s)

LIU, PIERRE

Examiner

Long K. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on November 10, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. The specification has been checked to the extent necessary to determine the presence of possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Objections*

2. Claim 1 is objected to because of the following informalities: since claims must be presented in one sentence no paragraph in the claim should begin with upper case character. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 4 are rejected under 35 U.S.C. 103(a) as being obvious over Hsieh et al. (US Patent No. 6,910,637) in view of Chen (US Patent No. 6,599,768).

The applied reference has a common assignee with the instant application:

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject

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matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

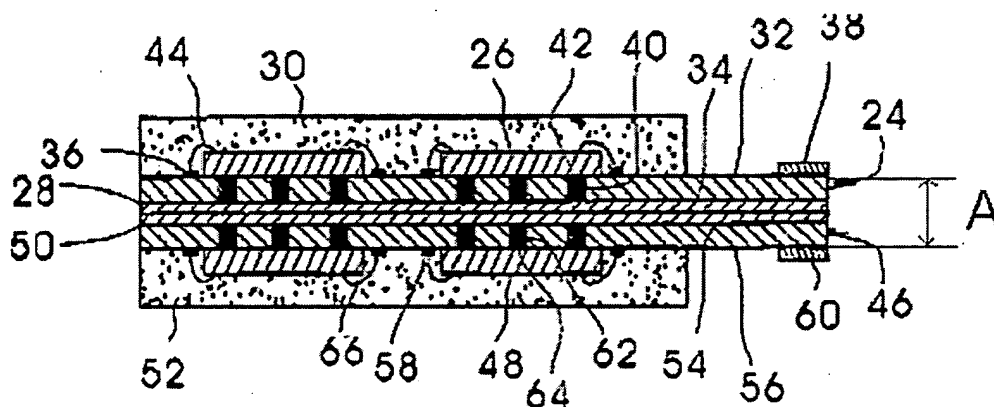


FIG. 3'

Regarding claim 1, Hsieh discloses a small memory card (fig. 3), comprising:  
 a multilayer substrate A (fig. 3' modified by the examiner for examination purposes, the multilayer substrate A comprising layers 24, 28, 50 and 46) having an upper surface 32 (fig. 3) and a lower surface 56 (fig. 3), the upper surface formed with a plurality of connected points 36 (fig. 3) and a plurality of golden fingers 38 (fig. 3) electrically connected to the plurality of connected points 36 (column 2, lines 47 – 53),

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the substrate A (fig. 3') arranged in the electric device, so that the plurality of golden fingers 38 may be electrically connected to the electric device (column 2, lines 62 – 65);

at least one memory chip 26 (fig. 3), which is arranged on the upper surface 32 of the substrate A electrically connected to a plurality of connected points 36 on the upper surface 32 (column 2, lines 55 – 58); and

a glue layer 30 encapsulated the memory chip 26 (column 2, line 62).

Hsieh fails to teach the glue layer 30 is a transparent glue used to protect the memory chip and display the mark of the memory chip or the substrate.

However, Chen shows a transparent resin or epoxy layer 130 (fig.3J; column 5, lines 65 and 66) encapsulating the LED chip 103 (fig. 3J) and substrate 100 (fig. 3J).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the glue layer of Hsieh with the transparent resin or epoxy layer of Chen, in order to protect the memory chip (Chen: column. 5; lines 65 and 66). In addition, since the combined device of Hsieh and Chen including a transparent layer encapsulating the memory chip and part of the substrate 100, it would be inherent that any mark of the memory chip or substrate will be visible through the transparent layer.

Regarding claim 2, Hsieh discloses the lower surface 56 (fig. 3) of the substrate A (fig. 3') arranged a memory chip 48 (fig. 3) and the glue layer 52 (fig. 3) is encapsulated the memory chip 48.

Hsieh fails to teach the glue layer 52 is a transparent glue used to protect the memory chip.

However, Chen shows a transparent resin or epoxy layer 130 (fig.3J; column 5, lines 65 and 66) encapsulating the LED chip 103 (fig. 3J) and substrate 100 (fig. 3J).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the bottom glue layer at the lower surface of Hsieh with the transparent resin or epoxy layer of Chen, in order to protect the memory chip (Chen: column. 5; lines 65 and 66).

Regarding claim 3, Hsieh and Chen shows the upper surface 32 of the multilayer substrate A (fig. 3') is arranged two memory chips 26 (fig. 3), and the transparent glue layer is encapsulated the two memory chips at the same time.

Regarding claim 4, Hsieh shows the memory chip 26 is electrically connected to the connected points 36 of the upper surface of the multilayer substrate A by wires 44 (fig. 3; column 2, lines 57 and 58).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long K. Tran whose telephone number is 571-272-1797. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LKT

July 14, 2005

UKTRAW